

**ABSTRACT OF THE DISCLOSURE**

Chemical cellulose pulp produced by alkaline delignification and having a kappa number of under 24 (e.g. 14 or below) having hexenuronic acid is treated to remove at least 50% of the hexenuronic acid (e.g. 90-97%) such as by treating the pulp at a temperature over 85°C (e.g. about 90-180°C, preferably about 90-110°C) at a pH between about 2-5 (e.g. about 2.5-4), which also results in a reduction of kappa number by at least two units (e.g. about 2-9 units, preferably about 3-6 units). The treatment time  $t$ , in minutes, is at least 0.5  $\exp(10517/(T+273)-24)$ , where  $T$  is the treatment temperature in degrees C. The chemical cellulose pulp is bleached in at least one bleaching stage; where the bleaching stage is a chlorine dioxide, ozone, or peracid, treatment takes place before bleaching. Under some other circumstances treatment can take place simultaneous with bleaching or after bleaching.